IN THE CLAIMS

Kindly cancel claims 1-21 in the provisional application as originally filed.

Please add new claims 22-44 as indicated below.

--22. (New) A pencil sharpener comprising:

a first external shell having internal ribs defining a first plurality of support surfaces;

a sharpening sub-assembly for sharpening a pencil;

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a second external shell mated with said first external shell to define a substantially closed compartment, said second external shell having internal ribs defining a second plurality of support surfaces;

wherein said first and second pluralities of support surfaces cooperate with each other to fixedly retain said sharpening sub-assembly within said shells.

23. (New) The pencil sharpener of claim 22, wherein said first and second pluralities of support surfaces serve as the sole means of mounting said sharpening sub-assembly in said compartment.

24. (New) The pencil sharpener of claim 22, wherein said sharpening sub-assembly comprises:

a blade-supporting shaft;

a rotary blade and a pinion supported co-axially on said blade-supporting shaft, said rotary blade having spiral cutting edges;

a blade holder defining a cavity for receiving an end of the said pencil therein and supporting said blade-supporting shaft, said blade holder being supported by said first and second external shells to be rotatable around an axis of said cavity;

a cutter gear module defining a pencil-receiving opening and including an annular ring gear meshing with said pinion; and

a drive shaft which drives said blade holder around said axis;

wherein said drive shaft is capable of driving said blade holder around said cavity, causing said pinion to travel along said annular ring gear and said rotary blade to rotate and sharpen the pencil advanced into said cavity.

25. (New) The pencil sharpener of claim 24, wherein said blade holder defines a ring flange and said cutter gear module defines a ring groove for registering with said ring flange; and

wherein said blade holder is rotatably supported at one end by said cutter gear module when said ring flange is positioned within said ring groove, said cutter gear module being supported by said first and second external shells.

26. (New) The pencil sharpener of claim 22, further comprising:

an electric motor operatively connected to said sharpening sub-assembly for driving said sharpening sub-assembly, said first and second pluralities of support surfaces cooperating with each other to engage and retain said electric motor in response to mating of said first and second external shells, said first and second

pluralities of support surfaces serving as the sole means of mounting said electric motor in said compartment.

27. (New) The pencil sharpener of claim 24, further comprising:

an electric motor operatively connected to said sharpening sub-assembly for driving said sharpening sub-assembly, said first and second pluralities of support surfaces cooperating with each other to engage and retain said electric motor in response to mating of said first and second external shells, said first and second pluralities of support surfaces serving as the sole means of mounting said electric motor in said compartment;

wherein said motor gear module comprises a switch operatively connected to said electric motor for driving said sharpening sub-assembly when said switch is activated upon insertion of the pencil into said pencil-receiving opening.

28. (New) The pencil sharpener of claim 27, wherein said switch comprises a pawl and a pair of contacts mounted on said cutter gear module, said pawl being positioned to cause said pair of contacts to electronically connect for closing a circuit.

29. (New) The pencil sharpener of claim 24, wherein said cutter gear module comprises:

a switch operatively connected to said electric motor for preventing operation of said motor unless said switch is activated by mating of a receptacle with said first and second external shells.

30. (New) The pencil sharpener of claim 29, wherein said switch comprises a pawl and a pair of contacts mounted on said cutter gear module, said pawl being positioned to cause said pair of contacts to electronically connect for closing a circuit.

31. (New) The pencil sharpener of claim 24, further comprising:

a dual switch operatively connected to said electric motor for driving said sharpening sub-assembly only when said dual switch is activated by a pencil inserted into said pencil-receiving opening and a receptacle mated with said first and second external shells.

32. (New) The pencil sharpener of claim 31, wherein said dual switch comprises:

a first contact electrically connected to a first side of a circuit powering said electric motor;

a second contact electrically connected to a second side of said circuit;

a third contact mounted in spaced relationship to said first and second contacts;

a first pawl mounted on said cutter gear module in position to cause said third contact to electrically connect with said first contact responsive to insertion of a pencil into said pencil-receiving opening; and

a second pawl mounted on said cutter gear module in position to cause said third contact to electrically connect with said second contact responsive to mating of a receptacle with said first and second external shells.

33. (New) The pencil sharpener of claim 32, further comprising a receptacle removably matable with said first and second external shells for receiving pencil shavings discharged from said sharpening sub-assembly.

34. (New) The pencil sharpener of claim 33, wherein said receptacle comprises an internal fin positioned to contact said second pawl of said dual switch.

35. (New) A pencil sharpener comprising:

a first external shell having internal ribs defining a first plurality of support surfaces;

a cutter assembly defining a ring flange and having a rotatable pinion;

a cutter gear module defining a pencil-receiving opening and including an annular ring gear meshing with said pinion, said gear module defining a ring groove for registering with said ring flange;

a second external shell mated with said first external shell to define a substantially closed compartment, said second external shell having internal ribs defining a second plurality of support surfaces;

whereby said cutter assembly is rotatably supported at one end by said gear module when said ring flange is positioned within said ring groove; and

wherein said first and second pluralities of support surfaces cooperate with each other to engage and retain said cutter assembly and said gear module in said compartment.

36. (New) The pencil sharpener of claim 35, wherein said first and second pluralities of support surfaces serve as the sole means of mounting said cutter assembly and said gear module in said compartment.

37. (New) The pencil sharpener of claim 35, wherein said cutter assembly comprises:

a blade-supporting shaft;

a rotary blade carried co-axially on said blade-supporting shaft, said rotary blade having spiral cutting edges;

a blade holder defining a cavity for receiving an end of a pencil therein and supporting said blade-supporting shaft, said blade holder being supported by said first and second external shells to be rotatable around an axis of said cavity; and

a drive shaft which drives said blade holder around said axis;

wherein said pinion is carried co-axially on said shaft;

whereby said blade holder is rotatably supported at one end by said gear module when said ring flange is positioned within said ring groove, said gear module being supported by said first and second external shells; and

whereby said drive shaft is capable of driving said blade holder around said cavity, causing said pinion to travel along said annular ring gear and said rotary blade to rotate and sharpen any pencil advanced into said cavity.

38. (New) The pencil sharpener of claim 37, further comprising:

a dual switch operatively connected to said electric motor for driving said sharpening sub-assembly only when said switch is activated by a pencil inserted into said pencil-receiving opening and a receptacle mated with said first and second external shells.

39. (New) The pencil sharpener of claim 38, wherein said dual switch comprises:

a first contact electrically connected to a first side of said circuit powering said electric motor;

a second contact electrically connected to a second side of a said circuit;

a third contact mounted in spaced relationship to said first and second contacts;

a first pawl mounted on said cutter gear module in position to cause said third contact to electrically connect with said first contact responsive to insertion of a pencil into said pencil-receiving opening; and

a second pawl mounted on said cutter gear module in position to cause said third contact to electrically connect with said second contact responsive to mating of a receptacle with said first and second external shells.

40. (New) The pencil sharpener of claim 39, further comprising:

an electric motor operatively connected to said cutter assembly for driving said cutter assembly, said first and second pluralities of support surfaces cooperating with each other to engage and retain said electric motor in said compartment when first and second external shells are mated, said first and second pluralities of support surfaces serving as the sole means of mounting said electric motor in place in said compartment; and

a receptacle removably matable with said first and second external shells for receiving pencil shavings discharged from said sharpening sub-assembly.

41. (New) The pencil sharpener of claim 40, wherein said receptacle comprises an internal fin positioned to contact said second pawl of said dual switch.

42. (New) A method of manufacturing a pencil sharpener, comprising:

providing internal sharpener components, said components including a cutter assembly capable of sharpening a pencil and an electric motor for driving said cutter assembly;

providing a first external shell, said first shell having internal ribs defining a first plurality of support surfaces configured to be capable of supporting said sharpener components;

providing a second external shell matable with said first external shell to form a housing of said pencil sharpener when so mated, said second shell having internal ribs defining a second plurality of support surfaces, said second plurality of support surfaces capable cooperating with said first plurality of support surfaces to fixedly retain said internal sharpener components within said housing when said first and second shells are mated;

placing said internal sharpener components on said first external shell such that said sharpener components are supported by said internal ribs of said first external shell; and

mating said second external shell to said first external shell to complete said housing and fix said internal components therein.

43. (New) The pencil sharpener of claim 22, further comprising:

a substantially flat base having front, rear, left and right edges;

a front face extending from said front edge of said base and defining an opening for receiving a pencil, said front face having a top edge opposite said base and left and right side edges extending from said base and tapering toward said top edge;

a convex top side extending from said rear edge of said base to said top edge of said front base, said top side defining a raised connector boss for receiving a power plug;

a convex left side joining said left edge of said base to said top side and said left side edge of said front face, said left side defining a first arcuate indentation for grasping the pencil sharpener; and

a convex right side joining said right edge of said base to said top side and said right side edge of said front face, said right side defining a second arcuate indentation for grasping the pencil sharpener, said convex right side being a substantial mirror image of said convex left side.

44. (New) The pencil sharpener of claim 22, further comprising:

a first shell defining a first portion of a housing of said pencil sharpener;

a second shell defining a second portion of said housing, said second shell being matable to said first shell, said second shell being a substantial mirror image of said first shell; and

a receptacle matable with said first and second shells;

wherein said first shell, said second shell, and said receptacle are matable for providing:

a substantially flat base having front, rear, left and right edges, a front face extending from said front edge of said base and defining an opening for receiving a pencil, said front face having a top edge opposite said base and left and right side edges extending from said base and tapering toward said top edge;

a convex top side extending from said rear edge of said base to said top edge of said front base, said top side defining a raised connector boss for receiving a power plug;

a convex left side joining said left edge of said base to said top side and said left side edge of said front face, said left side defining a first arcuate indentation for grasping the pencil sharpener; and

a convex right side joining said right edge of said base to said top side and said right side edge of said front face, said right side defining a second arcuate indentation for grasping the pencil sharpener, said convex right side being a substantial mirror image of said convex left side.--

REMARKS

The provisional application filed May 24, 2001 (U.S. Application No. 60/293,471) included original claims 1-21. Original claims 1-21 have been canceled. New claims 22-44 submitted herewith have been added. Calculation of the filing fee should be calculated based on the new claims.

In The Drawings

The provisional application filed May 24, 2001 (U.S. Application No. 60/293,471) included original Figures 1-10. Original Figures 7-10 have been canceled.

New Formal Drawings for Figures 1-6 have been submitted. New Figure 6 is fully supported by previous Figures 6-10 as originally filed, and does not include new matter. Entry of new Figure 6 is requested.